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Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

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In the Matter of

Digital Data Transmission Within  
the Video Portion of Television  
Broadcast Station Transmissions

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MM Docket No. 95-42

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**REPLY COMMENTS OF EN TECHNOLOGY CORPORATION**

Richard J. Bodorff  
David E. Hilliard  
Michael K. Baker  
WILEY, REIN & FIELDING  
1776 K Street, N.W.  
Washington, D.C. 20006  
(202) 429-7000

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To: Chief, Mass Media Bureau

**REPLY COMMENTS OF EN TECHNOLOGY CORPORATION**

En Technology Corporation ("En") hereby submits these reply comments in the above-captioned proceeding.<sup>1</sup> En is the proponent of a unique television enhancement system, which provides broadcasters and consumers with an inexpensive and immediately available means for the transmission of digital data to personal computers. En seeks confirmation that broadcast licensees may use its technology without prior FCC consent.

The comments received in this proceeding clearly indicate that marketplace forces rather than Commission regulations should be relied upon to protect the public's interest in receiving high quality video signals. Looking to the marketplace will permit broadcasters to compete promptly and on an equal basis with cable and DBS operators for digital data transmission business. Adoption of a uniform NTSC data broadcasting

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<sup>1</sup> In the Matter of Digital Data Transmission Within the Video Portion of Television Broadcast Station Transmissions, MM Docket No. 95-42, FCC 95-155, Notice of Proposed Rulemaking (rel. May 2, 1995) ("NPRM").

standard would cause substantial delay and likely cause broadcasters to forego NTSC data transmission in favor of awaiting the advent of Advanced Television ("ATV").

**I. SIGNAL QUALITY STANDARDS ARE BEST LEFT TO BROADCASTERS, WHOSE ECONOMIC VIABILITY DEPENDS ON THE CONTINUED SUPPORT OF THE VIEWING PUBLIC**

The consensus of the commenters is that "signal quality" standards are best left to broadcasters, who have a strong economic incentive to maintain a high quality video signal. Such marketplace incentives obviate the need for any regulatory oversight of signal quality.

The Commission should confirm that broadcast licensees may use data transmission systems, like En's, without prior Commission consent where the data is program-related, intended for reception by the general public, and made within the boundaries of the NTSC signal. Unlike the proposals of other commenters, En's technology does not raise the specter of picture degradation caused by the transmission of unrelated data (e.g., impairment of an NFL football video resulting from the transmission of stock information). Instead, En's system entails the transmission of program-related data that enhances the value of the program to the viewer (e.g., the transmission of computer software directly into the PC of a viewer during a program in which the software is being demonstrated).

Support for the view that signal quality issues should be left to the marketplace was voiced by numerous commenters. Radio Telecom & Technology Inc. ("RTT")

stated that the Commission should not be concerned that data transmission may cause signal degradation because "the market place has and will continue to reward or punish on the basis of what it finds acceptable."<sup>2</sup> Likewise, WavePhore commented that "[b]roadcasters have enormous incentives to maintain their picture quality in order to satisfy their regular viewers" and that "the Commission has relied on broadcasters to act in their own best interest and vigilantly protect the quality of their broadcast signals."<sup>3</sup> Sounding a similar theme, A.C. Nielsen stated that "the FCC traditionally has relied upon the marketplace to ensure preservation of signal quality" because the Commission has found that "a strong marketplace incentive exists [for broadcasters] to maximize the quality of service."<sup>4</sup>

Accordingly, so long as co-channel and adjacent channel stations are not affected by digital data transmissions, licensees should be permitted to provide

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<sup>2</sup> Comments of RTT at 3; see also id. at 6 ("the judgment as to whether the [data transmission] is discernible or not should be left to the broadcaster, who has a powerful market-based incentive to preserve the quality of the main video program signal so as not to lose viewers.")

<sup>3</sup> Comments of WavePhore, Inc. at 12-13. WavePhore rightly points to a number of Commission decisions relaxing technical standards and permitting broadcasters additional technical flexibility that are premised on the notion that licensees have forceful economic incentives to maintain their signal quality: Reexamination of Technical Regulations, 57 R.R.2d 391 (1984); Television Broadcast Stations (Technical Operational Regulations), 65 R.R.2d 1829 (1989), Television Waveform Standards Concerning Horizontal and Vertical Blanking Intervals, 57 R.R.2d 1336, 1337 (1985), and Three Dimensional Television Programming, 51 R.R.2d 661 (1982).

<sup>4</sup> Comments of A.C. Nielsen at 16 (quoting Use of Subcarrier Frequencies in the Aural Baseband of Television Transmitters, 55 R.R.2d 1642, 1646 (1984) (Second Report and Order)).

consumers with program-related NTSC data transmissions free of government regulation. If the viewing public finds a particular transmission disturbing, annoying or distasteful, it will simply "tune out" the station on which it appears. Faced with declining ratings, the broadcaster will inevitably alter or abandon the data transmissions to meet the requirements of its audience. Proceeding in this matter would comport with existing FCC practice that places the burden on licensees (rather than the government or third parties) to exercise technical and editorial control over all ancillary communications within the VBI.<sup>5</sup>

## **II. NTSC DATA BROADCASTING SERVICES WOULD BE NEEDLESSLY DELAYED BY AWAITING THE ADOPTION OF A UNIFORM TECHNICAL STANDARD**

The FCC should not adopt a uniform technical standard for digital data transmission. Adoption of such a standard is unnecessary, could frustrate the development of new technologies, and, most significantly, could fatally delay the initiation of NTSC data broadcasting services. In addition, any standard of this type would run counter to the deregulatory theme of the telecommunications bills pending in Congress.

Adoption of a single technical standard could delay significantly the initiation of NTSC data broadcasting, thereby relegating such technologies to the scrap heap. Commenters favoring a uniform standard generally urge the Commission to incorporate

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<sup>5</sup> See NPRM at ¶ 25 (citing 47 C.F.R. § 73.646(d)).

the recommendations of the National Data Broadcasting Committee ("NDBC"). NDBC will not complete its standards work, however, until at least the second quarter of 1996.<sup>6</sup> The recent well-publicized technological and financial setbacks of two leading NTSC data broadcasting proponents,<sup>7</sup> suggest that even this prediction may be optimistic.

This delay is particularly troublesome since NTSC broadcasting has a limited life expectancy. By the time the NDBC has completed its work, broadcasters may conclude that it would make more sense for them to await the initiation of ATV service to begin data services than to do so in the final years of NTSC. While ATV may spawn myriad new data broadcasting services, all American consumers will be best served if licensees are encouraged to enhance the value of today's NTSC broadcasting through data transmission.<sup>8</sup>

The delay occasioned by the adoption of a single standard would also confer a significant competitive advantage upon competing distribution services such as cable and DBS. These competitors are not subject to any signal degradation rules and may

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<sup>6</sup> Comments of NDBC at 4.

<sup>7</sup> *Data Broadcasting Standard Hits Snag: WavePhore System Sent Back to Lab; Digideck Stumps for Financing*, Chris McConnell, Broadcasting and Cable at 45 (June 20, 1995).

<sup>8</sup> See, e.g., RTT at 9 ("With some 300 million NTSC television receivers operating today in the United States, NTSC technology may continue to benefit the public in new ways for longer than the Commission has previously anticipated.").

enter the business now while broadcasters await an FCC standard.<sup>9</sup> In short, the time for the Commission to authorize flexible NTSC data broadcasting rules is now.<sup>10</sup>

Moreover, a uniform standard is unnecessary since, as ably put in the comments of A.C. Nielsen,<sup>11</sup> RTT,<sup>12</sup> and WavePhore,<sup>13</sup> the public will be best served by permitting broadcasters the flexibility to choose the data broadcasting technology best suited to their needs. Those few commenters advocating a single data broadcasting technology have failed to show why a *single* standard is required and why the broadcasting marketplace is incapable of selecting the best standard(s) without governmental oversight.<sup>14</sup>

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<sup>9</sup> See WavePhore at 14 ("[t]he Commission should appreciate the extent to which broadcasters will be hampered in competing with the cable and satellite industries if they are required to adhere to unique picture degradation requirements. Cable is not constrained in its ability to add data to its video transmissions, nor are Direct Broadcast Satellite operators."); RTT at 3 ("[u]nless new technologies are allowed to come into being without undue regulatory restraints, television broadcasters will not be able to compete effectively in the future multimedia and interactive television world.").

<sup>10</sup> As several commenters recognized, the Commission should promote NTSC data broadcasting as a transition to ATV data services. See, e.g., WavePhore at 17-18. Indeed, broadcasters who implement NTSC data broadcasting service will forge important alliances with data content providers and earn new revenue streams needed to upgrade to digital transmission equipment.

<sup>11</sup> A.C. Nielsen at 15-20.

<sup>12</sup> RTT at 3.

<sup>13</sup> WavePhore at 12-16.

<sup>14</sup> See, e.g., Comments of Chris-Craft Industries, Inc./United Television, Inc. at 3. The Electronics Group contends that a single standard is necessary for data transmission intended for the general public so that television receiver manufacturers  
(continued...)

Adoption of a single standard also could forestall the development of new data broadcasting technologies. In an era where today's technology may become obsolete tomorrow, government should not adopt regulations that would inhibit research and development into entirely new means of data transmission. En's novel technology represents precisely the kind of innovative technology that might be precluded by a uniform standard.<sup>15</sup>

If the Commission nonetheless finds that a single technical standard is necessary, it should liberally grant ad hoc waivers while this standard is being developed.<sup>16</sup> This would allow broadcasters and consumers to realize immediately the benefits of the digital era and permit the marketplace to evolve of its own accord. In addition, the Commission should limit any technical standard arising out of the NDBC's work to sub-video data transmission technologies like those developed by WavePhore and Digideck. The NDBC is testing only these two sub-video technologies and, accordingly, any standards adopted should be appropriately limited.

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<sup>14</sup>(...continued)  
can include appropriate decoding circuitry in their products. Comments of Electronics Group at 3. However, the Electronics Group fails to explain why data broadcasting technologies cannot be deployed immediately to consumers who use component decoders or receiving equipment, as most consumers must to receive cable service.

<sup>15</sup> See, e.g., A.C. Nielsen at 18-20 ("Regardless of the 'cutting-edge nature' of the technology chosen as the 'standard' model, it is reasonable to assume that entirely *new* approaches, ideas or technologies would soon be proposed that would render the 'model' obsolete.").

<sup>16</sup> En notes that the NAB has no objection to the Commission's continuing grant of such waivers pending the adoption of standards. Comments of NAB at 5.

### III. CONCLUSION

Consistent with the foregoing, En respectfully requests that the Commission expeditiously allow television licensees to provide consumers with access to immediately available and inexpensive digital data broadcasting service.

Respectfully submitted,

**EN TECHNOLOGY CORPORATION**

By: 

Richard J. Bodorff  
David E. Hilliard  
Michael K. Baker  
WILEY, REIN & FIELDING  
1776 K Street, N.W.  
Washington, D.C. 20006  
(202) 429-7000

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